Owner's Guide

DECADE®
2561/2562
CART

a-dec®

85.2614.00

Warranty Information

Serial Number _____

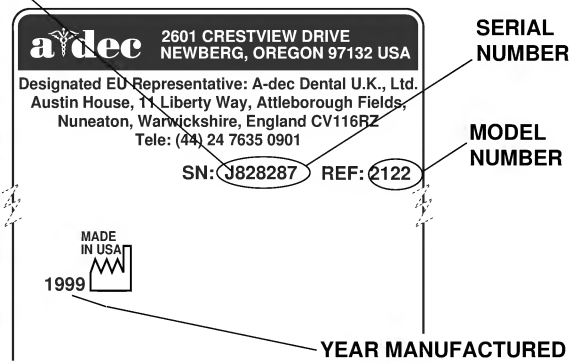
Model Number _____

Date Purchased _____

Date of Service	Model/Description of Service	Technician's Initials

ALPHABETICAL EQUIVALENT TO THE NUMERAL OF THE MONTH MANUFACTURED

A	January
B	February
C	March
D	April
E	May
F	June
G	July
H	August
I	September
J	October
K	November
L	December



SERIAL NUMBER IDENTIFICATION

Serial Number Location:

- Located on the underside of the cart housing.

For Replacement Parts or Service Information contact your local authorized A-dec dealer.

A-dec warrants its products and A-dec/W&H Synea handpieces against defects in material or workmanship for one year from time of delivery. All other handpiece instrumentation has a warranty period of six months. A-dec's sole obligation under the warranty is to provide parts for the repair, or at its option, to provide the replacement product (excluding labor). The buyer shall have no other remedy. (All special, incidental, and coincidental damages are excluded.) Written notice of breach of warranty must be given to A-dec within the warranty period. The warranty does not cover damage resulting from improper installation or maintenance, accident or misuse.The warranty does not cover damage resulting from the use of cleaning, disinfecting or sterilization chemicals and processes. The warranty also does not cover light bulbs. Failure to follow instructions provided in A-dec's Operation and Maintenance Instructions (Owner's Guide) may void the warranty.

NO OTHER WARRANTIES AS TO
MERCHANTABILITY OR OTHERWISE ARE MADE.

a-dec

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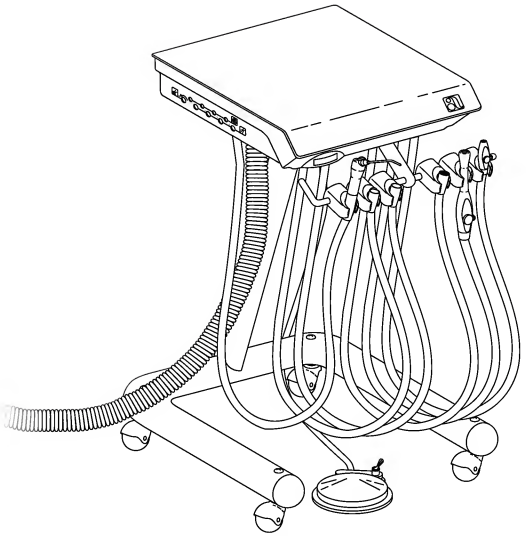
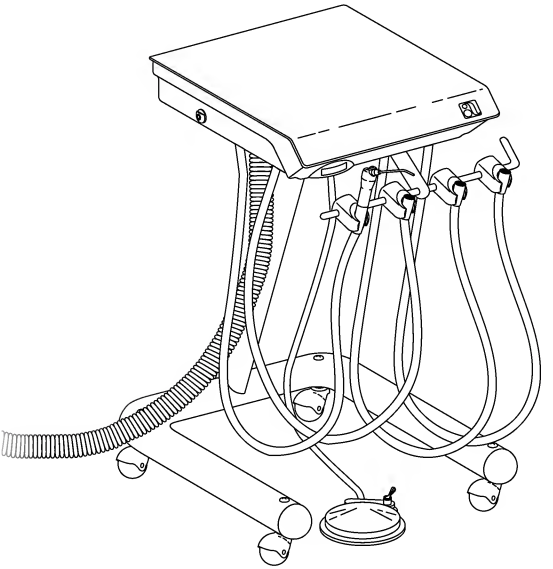


Decade 2561 Duo Cart



Decade 2562 Doctor's Cart

Serial Number Location, Service Information, and Warranty Information are located on the inside front cover and front page.

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OPERATION

About Your Decade Cart

Your Decade 2561 or 2562 Cart is built around A-dec's Century Plus® handpiece control system. This system provides automatic control of each handpiece. Until you lift a handpiece from its holder, it is inactive and cannot operate. As soon as you lift a handpiece it automatically becomes active, allowing it to run when you press the foot control disc.

With the exception of the drive air pressure gauge, all controls and indicators are located on the sides and bottom panel of the unit.

Autoclavable adjustment keys *(see Figure 1)* are provided for making adjustments to the recessed controls. If the adjustment keys are ever lost or misplaced, you can use a 1⁄8" hex key. You may also order additional keys from your authorized A-dec dealer.

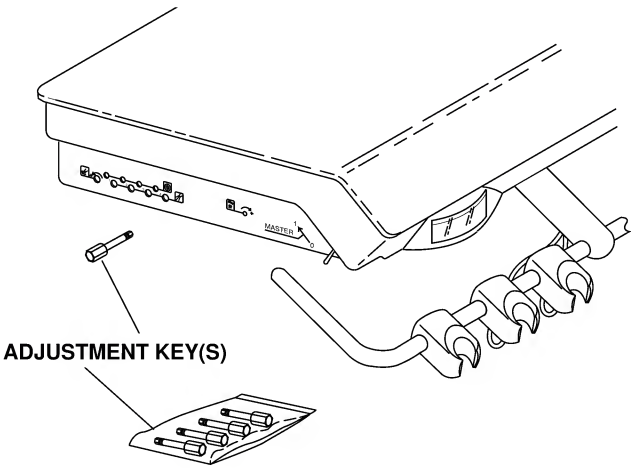

Figure 1. Autoclavable Adjustment Keys

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Handpiece Controls

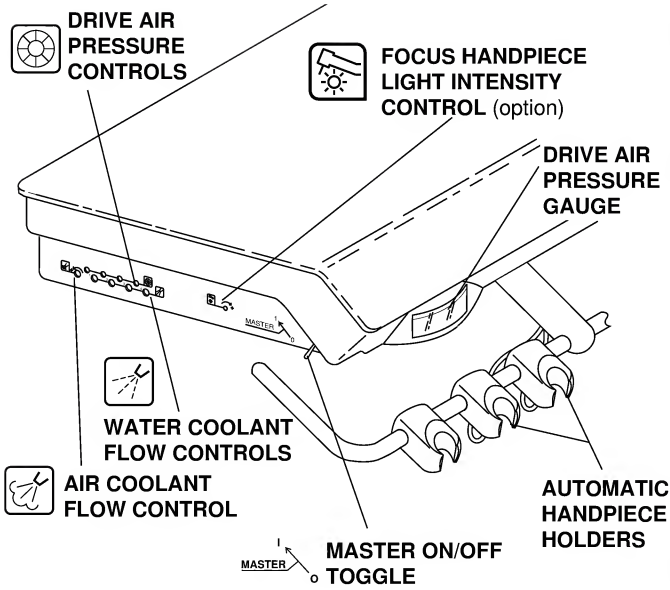
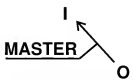


Figure 2. Handpiece Controls

Master On/Off Toggle



Master ON/OFF Toggle. Turns on and off the air, water, and electrical power to the system.

CAUTION

The MASTER ON/OFF TOGGLE should be in the OFF (0) position whenever the unit is not in use.

This will prevent the possibility of water damage should a leak occur while the unit is unattended.

Making sure the unit is off will also prevent the possibility of self-activation and the resulting burn-out of your electrical accessories.

Drive Air Pressure Gauge

The drive air pressure gauge *(see Figure 3)* indicates, in psi and kg/cm2, the drive air pressure to the active handpiece *(refer to page 6)*.

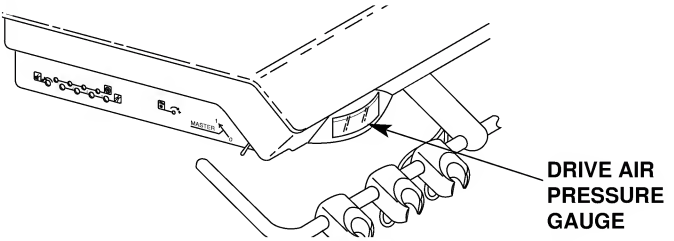


Figure 3. Drive Air Pressure Gauge

Water Outlet with Flow Control

The water outlet with flow control *(see Figure 4)* provides water for hydrocolloid tubing. The outlet accepts A-dec's quick disconnect (QD) flow-control. Flow is controlled by a knob on the QD itself. To increase flow, turn the knob counterclockwise; to decrease flow turn the knob clockwise.

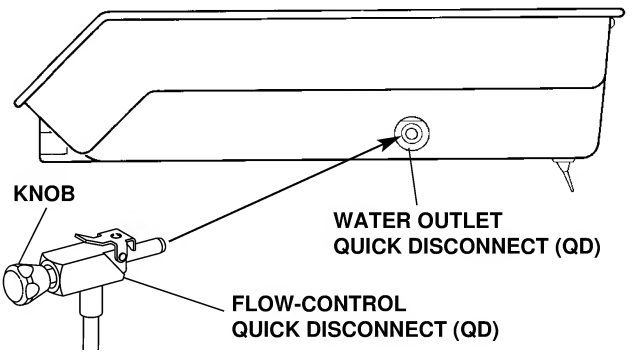


Figure 4. Water Outlet With Flow Control

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Foot Control

The foot control modulates drive air to the active handpiece and provides an air signal that activates the coolant air and coolant water flow. The foot control is operated by light foot pressure applied to any part of the foot control disc.

The foot control is equipped with a wet/dry toggle and can be equipped with an optional chip blower button *(see Figure 5)*.

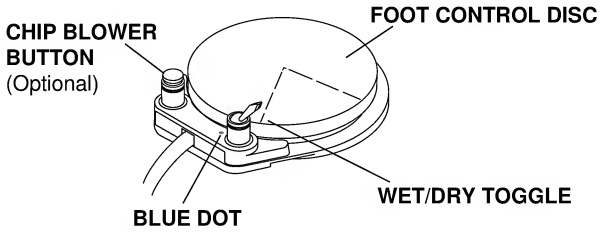

Figure 5. Foot Control

Wet/Dry Toggle. Allows you to shut off the coolant water to the handpiece without moving your hands from the oral cavity. Using your foot, move the toggle away from the blue dot to turn the coolant water OFF. Move the toggle toward the blue dot to turn the coolant water ON.

Chip Blower Button. Sends a jet of air through the handpiece when it is not running.

Drive Air Pressure Controls

The drive air pressure controls *(see Figure 6)* are used to adjust the drive air pressure to each handpiece.

Adjust the drive air pressure to meet the handpiece manufacturer's dynamic drive air pressure specification. *Refer to the documentation that came with your handpiece for the dynamic drive air pressure specification.*

You will need a 3/32" hex key to complete this adjustment.

1. Install a bur in the handpiece.
2. Locate the drive air gauge on the front of the control head *(see Figure 3 on page 4)*.
3. Move the wet/dry toggle on the foot control *(see Figure 4 on page 5)* to the OFF position, *away from the blue dot*.
4. Turn the drive air control clockwise until the valve seats.
5. Fully depress the foot control disc.
6. While running the handpiece, watch the drive air gauge and adjust the handpiece dynamic drive air pressure to meet manufacturer's specifications.
   - Turn the drive air control counterclockwise to increase drive air pressure flow.
   - Turn the control clockwise to decrease flow.
7. Repeat steps 1 through 6 for ***EACH*** handpiece.

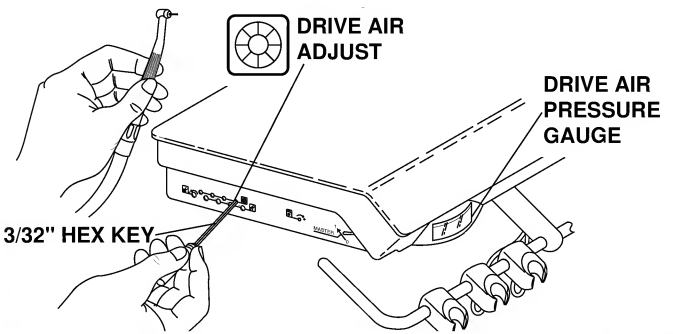

Figure 6. Drive Air Pressure Adjustment

Coolant Air Flow Control

The coolant air flow control *(see Figure 7)* is used to adjust the coolant air flow to all handpieces.

You will need an adjustment key (see Figure 1 on page 2) or a 1⁄8" hex key to complete this adjustment.

1. Install a bur in the handpiece.
2. Locate the coolant air control (see Figure 7).
3. Move the wet/dry toggle on the foot control *(see Figure 5 on page 5)* to the OFF position, *away from the blue dot*.
4. Insert an adjustment key, or a 1⁄8" hex key, into the coolant air flow control.
5. Fully depress the foot control disc to activate the handpiece.
6. Adjust the coolant air flow to fit your needs. A strong flow of air is recommended.
   - Turn the control clockwise to decrease the flow.
   - Turn counterclockwise to increase the flow.
7. The coolant air has been set for **ALL** handpieces.

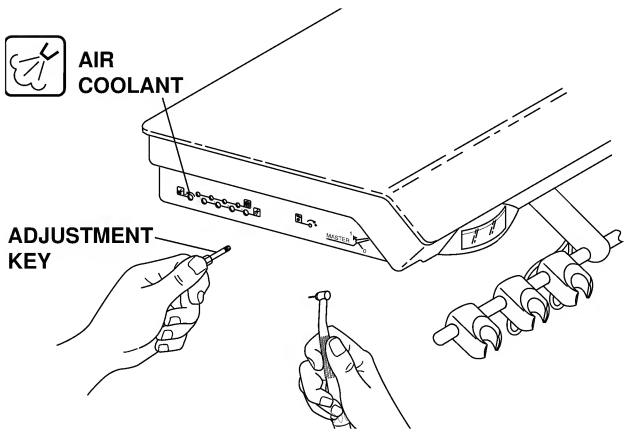

Figure 7 Coolant Air Adjustment

Coolant Water Flow Controls

The coolant water flow controls are used to adjust the flow of coolant water to each handpiece *(see Figure 8)*.

You will need an adjustment key (see Figure 1 on page 2) or a 1⁄8" hex key to complete this adjustment.

1. Install a bur in the handpiece.
2. Locate the coolant water flow controls *(see Figure 8)*.
3. Move the wet/dry toggle on the foot control *(see Figure 5 on page 5)* to the ON position, *toward the blue dot*.
4. Insert an adjustment key, or a 1⁄8" hex key, into the coolant water flow control for the handpiece being adjusted.
5. Fully depress the foot control disc to activate the handpiece.
6. Adjust the coolant water flow to fit your needs.
   - Turn the control clockwise to decrease the flow.
   - Turn counterclockwise to increase the flow.
7. Adjust the coolant water for **EACH** handpiece.

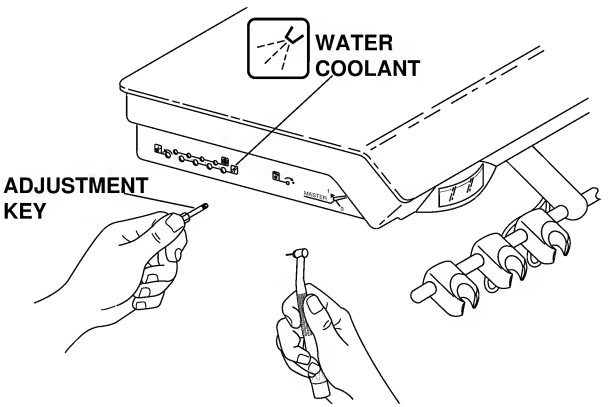

Figure 8. Coolant Water Adjustment

Handpiece Tubing Flush

The handpiece tubing flush system flushes more water through the tubings in less time than is normally possible when operating the foot control only. The handpieces should not be connected when flushing the tubings.

How Often Should the Handpiece Tubings be Flushed?

After Each Patient:

Flush the tubings for about 20-30 seconds.

At the Beginning of Each Day:

Flush the tubings for 2-3 minutes.

Flushing the Handpiece Tubings

Gather up all the handpiece tubings that use coolant water and hold them over a sink, cuspidor bowl or basin. Be sure you hold the tubings so that the water will be directed away from you and into the receptacle *(see Figure 9)*.

Locate the handpiece tubing flush toggle *(see Figure 9)*. Move the toggle toward the front of the cart and hold for the appropriate time required, either for flushing between patients or flushing at the beginning of each day. Release the toggle and replace the tubings in their holders.

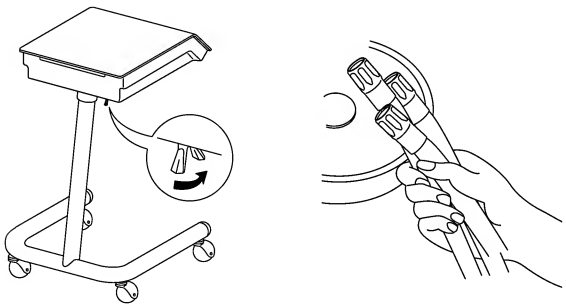

Figure 9. Locate the Flush Toggle

Handpiece Holder Tension Adjustment & Positioning

The holder tension was set at the factory. However; if a holder is difficult to reposition or repositions too easily, the holder tension can be adjusted.

To adjust the holder tension:

- Loosening or tightening the tension adjustment screw shown in Figures 10.

To reposition a holder:

- Rotate the holder to the desired angle.

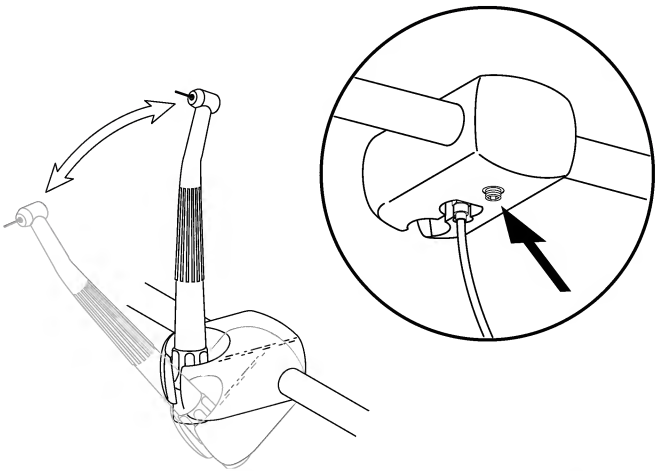

Figure 10. Individual Handpiece Holder

Handpiece Dry Block Conversion

Your Cascade handpiece control system has one to four handpiece control blocks with coolant water to the handpiece. In some cases a control block without coolant water, a dry block, is required. If you require a dry block (offering no water to the handpiece) on your handpiece control system, a dry block conversion kit has been included with your system.

Installing the Dry Block Conversion Kit

1. Move the master on/off toggle to the OFF position. Bleed the system water by operating the syringe and flushing the handpiece tubings.
2. Locate the handpiece control block position that will be the dry block. Access the control blocks underneath the control head.
3. Use a 3/32" hex key to remove the large red cartridge from the control block. Install the large black cartridge from the dry block conversion kit into the control block *(see Figure 11)*.
4. Use a 3/32" hex key to remove the small blue cartridge from the same control block. Install the small black cartridge from the dry block conversion kit into the control block *(see Figure 11)*.
5. Turn your handpiece control system on, then check the function of the dry block handpiece conversion. A small amount of residual water may be discharged from the handpiece tubing but should dry after a few seconds.

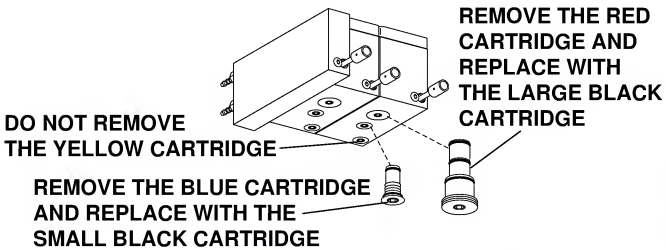
REMOVE THE RED CARTRIDGE AND REPLACE WITH THE LARGE BLACK CARTRIDGE
DO NOT REMOVE THE YELLOW CARTRIDGE
REMOVE THE BLUE CARTRIDGE AND REPLACE WITH THE SMALL BLACK CARTRIDGE

Figure 11. Handpiece Dry Block Conversion

Oil Collector

The oil collector on your unit needs to be changed once a week for normal usage. Change more often for heavier use.

1. Remove the oil collector jar from the unit and discard the old gauze (*see Figure 12*).
2. Fold in quarters a new two inch square gauze pad and place against the spring inside the jar.
3. Screw the oil collector jar onto the unit. Do not overtighten.

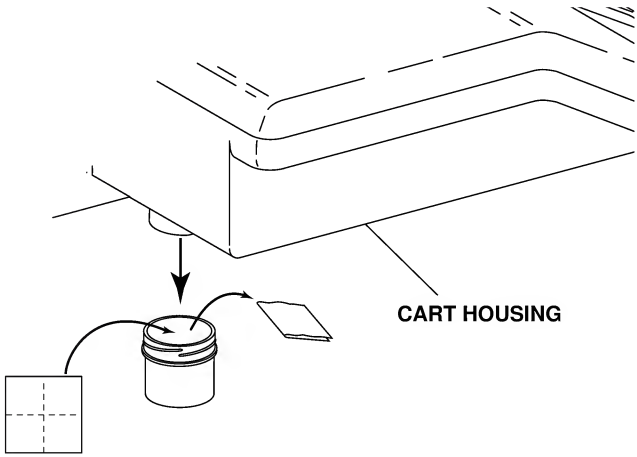

Figure 12. Oil Collector

Care Instructions

For recommended asepsis instructions, refer to your ***Equipment Asepsis Owner's Guide*** *(A-dec Publication No. 85.0696.00)* .

For recommended self-contained water system care, refer to ***A-dec Self-contained Water System Owner's Guide*** *(A-dec Publication No. 85.0675.00)*.

Syringe

To operate the syringe *(see Figure 13)*:

- Move the on/off toggle to the ON position.
- Air – Press the right button down.
- Water – Press the left button down.
- Spray – Press both buttons down.

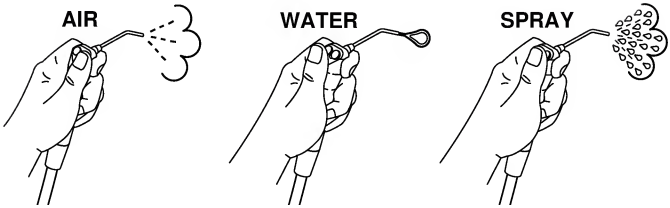

Figure 13. Autoclavable Syringe

Syringe Flow Controls. Located underneath the cart top. Flow is controlled by adjustable air and water flow restrictors (tubing pinch valves) on the syringe tubing under the cart top *(see Figure 14)*.

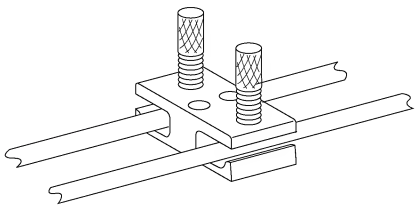

Figure 14. Adjusting Syringe Flow

Refer to your ***Autoclavable Syringe Owner's Guide*** *(A-dec Publication No. 85.0680.00)* for complete syringe operation and maintenance instructions.

Vacuum Instruments (model 2561 only)

Autoclavable HVE & Autoclavable Saliva Ejector

To operate the autoclavable HVE and saliva ejector, simply turn the control valve.

The autoclavable HVE and saliva ejector can be easily converted for right- or left-hand operation. To convert, press the control valve out of the valve body *(see Figure 15)*. Rotate the control valve 180°, then press it back into the valve body.

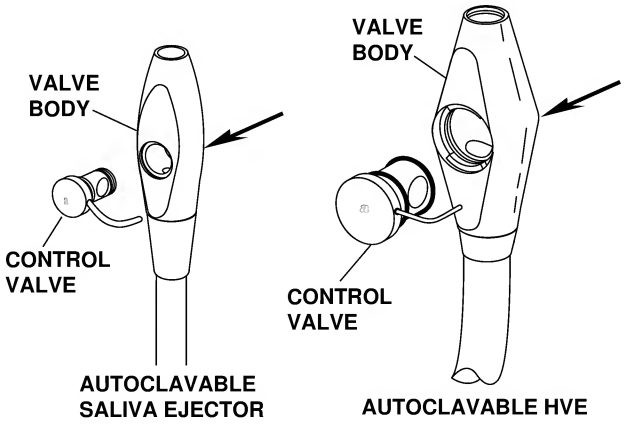

Figure 15. Right- to Left-Hand Conversion

Refer to your ***Assistant's Instrumentation Owner's Guide*** *(A-dec Publication No. 85.2610.00)* for complete instructions on cleaning your HVE and saliva ejector.

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Solids Collector

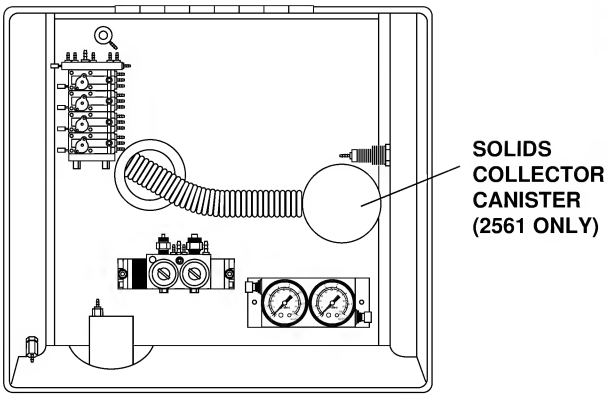

Figure 16. Solids Collector

The solids collector, located inside the cart *(see Figure 16)*, collects solids and prevents them from entering the central vacuum system. To remove the canister lid, turn off the vacuum, then twist the lid counterclockwise and lift it off.

At least once per week, remove and clean the solids collector screen *(see Figure 17)*. This is necessary to ensure proper suction from the central vacuum.

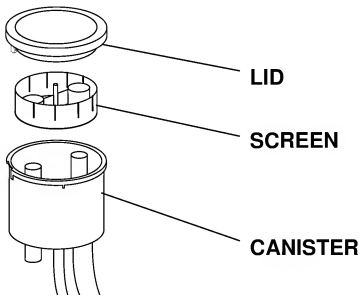

Figure 17. Cleaning the Solids Collector

Refer to your ***Assistant's Instrumentation Owner's Guide*** *(A-dec Publication No. 85.2610.00)* for complete solids collector maintenance instructions.

Utility Controls

System utility controls *(see Figure 18)* are located under the cart top.

Pre-Regulator controls the air and water pressures in the unit. The procedure for adjusting system pressure is given on page 17.

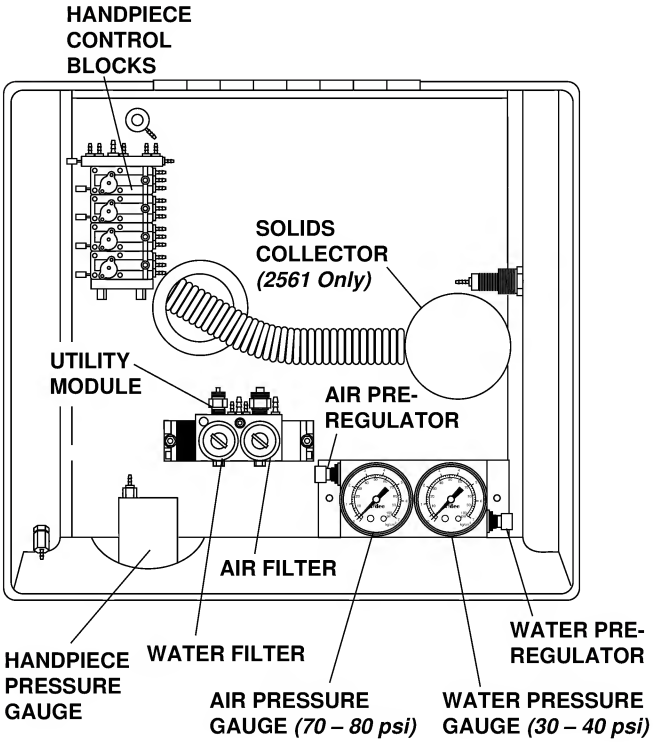

Figure 18. In-Cart Utilities

Air and Water Filters prevent solids from entering the unit. The procedures for checking and replacing the filters are given on pages 19 and 20.

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System Air and Water Pressure Adjustments

The air and water manual shutoff valves, as well as any vacuum or drain outlets, are located in the floor box mounted over the office plumbing on the floor or wall.

Before making any adjustments to components in the cart top, verify that the manual shutoff valves in the floor box are all the way open (turned fully counterclockwise) and that the compressor is on and functioning properly.

The air compressor should maintain 80 – 120 psi (552 – 690 kPa) in the tank. If it doesn't, refer to the instructions for the compressor.

1. Be sure that the manual shutoff valves are fully open (counterclockwise).
2. Move the master on/off toggle to the ON position.
3. Check the pressure gauges inside the cart housing *(see Figure 18 on page 16)*.
   - Air pressure should be 70–80 psi (483–552 kPa).
   - Water pressure should be 35–40 psi (241–276 kPa).
4. While watching the gauges, operate the syringe.

   If the system air pressure drops by more than 15 psi (103 kPa), or water pressure by more than 10 psi (69 kPa), check for clogged filters.

System Air and Water Pressure Adjustments (continued)

5. If adjustment of either the air or water pressure is required, turn the appropriate pre-regulator knob *(see Figure 19)*.
   - Clockwise to increase pressure.
   - Counterclockwise to decrease.

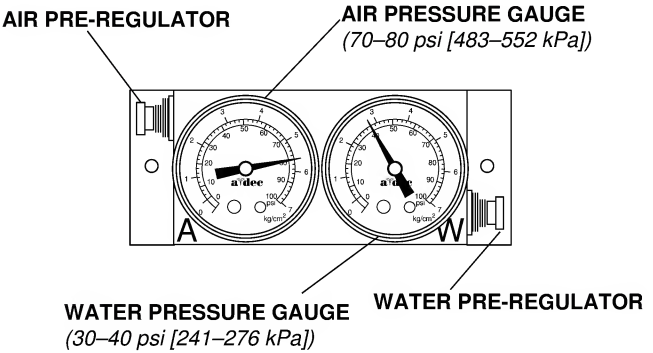

Figure 19. Air and Water Pressure Adjustment

> ***NOTE***
>
> When decreasing system air or water pressure, you will not see the air or water pressure gauge in the utility center change until you relieve pressure from the system. Activate the syringe for a few seconds, then check the gauge. Repeat this process each time you make an adjustment to decrease pressure.

6. Test the unit by operating the syringe and handpieces for several seconds. Make sure air and water pressure are maintained.

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Filter Maintenance

Air and Water Filter Elements

Air and water pass through separate filters in the utility module before entering the regulator. A filter must be replaced when it becomes sufficiently clogged, restricting flow to the regulator. To determine the location of your system utility module, (*see Figure 18 on page 16)*.

To check the air filter, move the master on/off toggle to the ON position and lift the cart top. While watching the air pressure gauge in the cart top, press the syringe air button. If the air pressure indicated by the gauge drops by more than 15 psi (103 KPA), the filter element is clogged and must be replaced.

To check the water filter, move the master on/off toggle to the ON position and lift the cart top. While watching the water pressure gauge in the cart top, press the syringe water button. If the water pressure indicated by the gauge drops by more than 10 psi (69 KPA), the filter element is clogged and must be replaced.

Air and Water Filter Elements (continued)

To inspect or replace a filter element, move the master on/off toggle to the OFF position, then close the manual shutoff valves in the floor box. Bleed the system of air and water pressure by operating the syringe buttons until air and water no longer flow. Using a standard (flat-blade) screwdriver, remove the filter housing from the utility module *(see Figure 20)* and remove the filter.

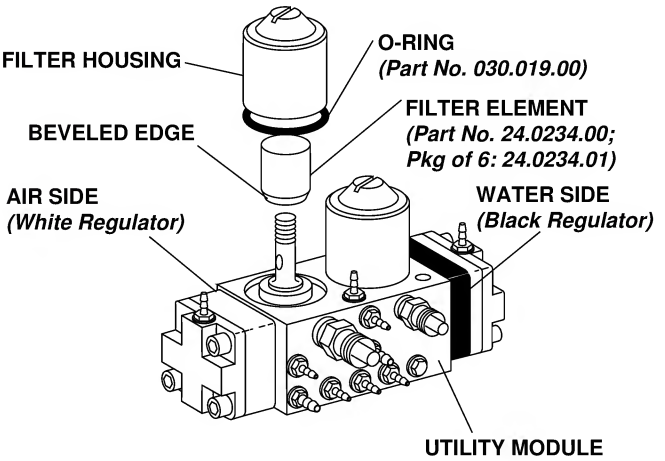

Figure 20. Filter Replacement

If the filter is visibly clogged or discolored, you will need to replace it. *Order A-dec Part No. 24.0234.00.*

When installing a new filter, notice that one end of the filter has a beveled edge. Install the filter with the beveled edge facing the utility module *(see Figure 20)*. The system will not work properly if the filter is installed incorrectly.

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Also refer to the following A-dec documentation for more maintenance information:

Assistant's Instrumentation

Assistant's Instrumentation Owner's Guide *.....85.2610.00*

Autoclavable Syringe Owner's Guide *.....85.0680.00*

Care Instructions

Equipment Asepsis Owner's Guide *.....85.0696.00*

Self-contained Water Owner's Guide *.....85.0675.00*

Power Supplies

Floor Boxes Owner's Guide *.....85.2611.00*

Adjustments and Specifications

Handpiece Controls
Drive Air Pressure .....page 6
(Refer also to your handpiece documentation for the manufacturer's maximum dynamic drive air pressure specification.)
Coolant Air Flow .....page 7
Coolant Water Flow .....page 8
Handpiece Holder .....page 10

Service Requirements for Unit Operation:

Minimum Air:
2.50 cfm (70.80 l/min) at 80 psi (551 kPa)

Minimum Water:
1.50 gpm (5.68 l/min) at 40 psi (276 kPa)

Minimum Vacuum:
12 cfm (339.84 l/min)
at 8 inches of mercury (27 kPa)

Cart Weight Specifications:
25 lb (11.34 kg) vertical load is the maximum safe load capability of the work surface.

Weights of optional attachments:
Tooth Dryer: 1 lb (.45 kg)
Intra-Oral Light Sources: 1 lb (.45 kg)

Any optional non-A-dec attachments and/or accessories must comply with EN 60601-1 and EN 60601-1-2.

Specifications are subject to change without notice.

Products List | Print | Table of Contents

Identification of Symbols

Recognized by Underwriters Laboratories Inc. ® with respect to electric shock, fire and mechanical hazards only in accordance with UL 2601-1. Recognized with respect to electric shock, fire, mechanical and other specified hazards only in accordance with CAN/CSA C22.2, No. 601.1.

UL listed to US (UL 544) and Canadian (CAN/CSA C22.2, No. 125) safety standards.

Classified by Underwriters Laboratories Inc. ® with respect to electric shock, fire and mechanical hazards only in accordance with UL 2601-1. Classified with respect to electric shock, fire, mechanical and other specified hazards only in accordance with CAN/CSA C22.2, No. 601.1.

Conforms to European Directives *(refer to Declaration Statement)*

Protective earth (ground).

Functional earth (ground).

Attention, consult accompanying documents.

TYPE B APPLIED PART.

CLASS II EQUIPMENT.

Classification of Equipment *(EN 60601-1)*

Type of Shock Protection:
CLASS I EQUIPMENT
(Dental Chairs, Dental Lights, & Power Supplies)
CLASS II EQUIPMENT
(Chair, Wall, & Cart Mounted Delivery Systems)

Degree of Shock Protection:
TYPE B APPLIED PART (All products)
(Degree of protection against water ingress:
ORDINARY EQUIPMENT (All products)

Mode of Operation
CONTINUOUS OPERATION
(All models except Dental Chairs)

Mode of Operation
CONTINUOUS OPERATION WITH
INTERMITTENT LOADING (Dental Chairs)

a-dec

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a-dec
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